Fluid: Documentation

***F****luid and* ***L****ush* ***U****ser* ***I****nterface* ***D****eity, written by Josh Steinhauer*

**fluid.App** (*Extends tk.Frame)*

The main frame that contains all widgets.

**\_\_init\_\_(parent)**

Initializes Application

*parent:* root frame, usually tk.Tk()

**addWidget(widget)**

Adds a widget to the app

*widget:* widget to add to the application

**fluid.Widget**

Contains a frame, can be added to app

**init(app,master)**

Initializes and adds itself to the app

*app:* application reference

*master:* frame to add to (parent frame)

**fluid.Graph** (*Extends ui.Widget)*

Interfaces with MatPlotLib to generate graphs as a Widget

**init(app,master,size)**

Initializes and adds itself to the app

*app:* application reference

*master:* frame to add to (parent frame)

*size:* MatPlotLib figure size

**setTitle(title)**

set title of graph

*title:* wanted title

**setLimits(xMin,xMax,yMin,yMax)**

set the limits/bounds of graph

*xMin:* The X-minimum limit

*xMax:* The X-maximum limit

*yMin:* The Y-minimum limit

*yMin:* The Y-maximum limit

**enableGrid()**

adds a Grid to the Graph

**addPlotLegend(label,plot):**

Generate a label on the legend for a specific plot

*label:* Wanted label

*plot:* Plot to be labeled

**buildPlot(getData)**

Generates a plot and adds it to the Graph. *Returns plot*

*getData (Optional):* Function that is used to receive data for plot

**addPlot(plot)**

Adds plot to graph

*plot:* Plot to add to graph

**updateGraph(case):**

Updates all plots in Graph

*Case: (Deprecated):* Data to push into each Plot’s getData()

**fluid.Plot**

A single plot to be added to a Graph

**init(graph)**

Initializes plot

*graph:* Graph owner

**setInputData(x,y)**

Set input data to be displayed in plot

*x:* List of x values

*y:* List of y values

**setColor(color)**

Set color of plot

*color:* Target color

**setLineStyle(style)**

Set line style of plot

*style:* Target line style

**setMarker(style)**

Set marker style of plot

*style:* Target marker style

**setFillStyle(style)**

Set fill style of plot

*style:* Target fill style

**setLineWidth(width)**

Set line width of plot

*width:* Target line width

**updatePlot(case) *(Internal)***

Updates matplotlib plot

*case (Deprecated):* input data

**addToLegend(label) *(Internal)***

Adds plot to owner graph’s legend

*label:* Target label

**getData(data) *(Deprecated)***

By default, this simply returns the input data. However, sometimes calculations must be done with data, and this is where it’s done. *Returns* *object with xVals and yVals*

*data:* Input data

**fluid.ContourPlot** *(Extends pui.Plot)*

A plot with MatPlotLib’s contour feature enabled

**updatePlot(case) *(Internal)***

Updates matplotlib contour plot

*case (Deprecated):* input data

**fluid.Button** *(Extends pui.Widget)*

A Widget with a tk Button implemented

**init(app,master,text)**

Inits button *(Returns frame)*

*app:* Application

*master:* Master/parent frame

*text:* Button text

**setCommand(command)**

set a function to run on button click

*command: function to run*

**fluid.InputBox** *(Extends pui.Widget)*

A widget with a label and a textbox

**init(app,master,label,default,width)**

Inits InputBox *(Returns frame)*

*app:* Application

*master:* Master/parent frame

*label:* Label of widget

*default (Optional):* Text in textbox

*width (Optional, default 10):* Width of textbox

**setValue(value)**

set value of textbox

*value:* Target value

**getValue()**

Fetch value of textbox *Returns value*

**fluid.OutputBox** *(Extends pui.Widget)*

A widget with a label and a block of text. Designed to show a value alongside the label

**init(app,master,label,value)**

Inits InputBox *(Returns frame)*

*app:* Application

*master:* Master/parent frame

*label:* Label of widget

*value* Text in textblock

**setFloatValue(value,roundAmount)**

set value of textbox, but rounds value

*value:* Target value

*roundAmount:* Determines the rounding amount

**setValue(value)**

set value of textbox

*value:* Target value

**fluid.Data2D *(Internal)***

A 2-Dimentional object

**fluid.Grid** *(Extends pui.Plot)* ***(Internal)***

A plot with a grid

**init()**

Initializes plot

**updatePlot()**

Updates matplotlib grid

**fluid.RefBox** *(Extends pui.Widget)* ***(Deprecated)***

***Do not use this trash***